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(I) Child poverty, food insecurity, and respiratory health during the COVID-19 pandemic

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For the Sustainable **Development Goals** see https://sustainabledevelopment. un.org/?menu=1300

For more on how disruption to childhood development can cause adult illness see I Reprod Immunol 2017: **124**: 21-29

For more on the effect of social deprivation on clinical outcomes in cystic fibrosis see Articles Lancet Respir Med 2013: 1:121-28

For more on disparities in respiratory health see Am J Respir Crit Care Med 2013; **188**: 865-71

For more on the impact of the great recession on child poverty see https://www.unicefirc.org/publications/911children-of-austerity-impact-ofthe-great-recession-on-childpoverty-in-rich-countries.html

For monitoring of social mobility, 2013-2020 see https://www.gov.uk/ government/news/monitoringsocial-mobility-2013-to-2020

For more on the consequences of COVID-19 in children see BMJ 2020: published online May 27. DOI:10.1136/bmj.m2061

For more on food insecurity and child health see Pediatrics 2019; 144: e20190397

For the US study of food insecurity in people with cystic fibrosis see Front Public Health 2018; 6: 348 The eradication of poverty and hunger are the top sustainable development goals, adopted by UN Member States in 2015. Yet the World Food Programme estimates that, in the wake of the COVID-19 pandemic, acute food insecurity could double from 135 to 265 million people worldwide. In the absence of mitigating policies, poverty leading to food insecurity will damage the respiratory health of a generation of children.

Inequalities in lifelong respiratory health originate in childhood, when adequate nutrition is essential. The respiratory system starts to develop 3 weeks after conception, and grows until adolescence, with the lungs maturing most rapidly in size and intricacy in the first three years of life. Disruption to this development in childhood contributes considerably to the early onset of adult illnesses, such as chronic obstructive pulmonary disease (COPD). This disruption can be driven by many of the consequences of living in poverty, including malnutrition. Even in cystic fibrosis, an inherited genetic disease, health inequalities can be seen: social disadvantages can disrupt respiratory development, influencing survival in people with the condition.

Poor nutrition is intricately linked to other povertyrelated risk factors for respiratory illness. Prematurity is linked to poverty and tobacco smoke exposure in pregnancy, and among preterm infants, those with poor intrauterine or postnatal growth have worse respiratory outcomes. Poor children are more likely to live in overcrowded and damp housing, less likely to be vaccinated, and more likely to catch infections that damage



the respiratory system early in life. They have less access to green space for exercise and are more likely to breathe poor quality air, whether indoors or outside.

From previous economic crises, we know that children are more likely to fall into poverty and be subject to the negative consequences of poverty than any other age group. Even before the COVID-19 pandemic, increasing levels of poverty and food insecurity among the UK population was an urgent problem. Welfare cuts over the past decade have pushed many more children into poverty, with one in three children currently affected. Before 2010, charities providing food aid in the UK hardly existed. In 2019, subsequent to austerity measures eroding welfare provision, the Trussell Trust, who run 60% of UK foodbanks, distributed 1.6 million emergency food supply parcels.

Unintended consequences of the lockdown will have affected poor children the most. During the COVID-19 pandemic, many children who rely on school meals to sustain their nutrition have gone hungry. In the UK, in 2019, 1.3 million children were eligible for free school meals, and a further 1 million children (deemed ineligible for free meals) were estimated to be living in food insecurity. In the USA, rural counties have been hit hardest by restricted food access; during the COVID-19 pandemic, rates of food insecurity have doubled from 18% to 35%. Large observational studies suggest that living in food poverty increases the risk of developing childhood asthma, and in one US study, parents of children with cystic fibrosis were twice as likely as parents in the general population to be living in food insecurity. The effect of food insecurity on outcomes in children with asthma and cystic fibrosis, and other respiratory illnesses, are likely to persist for decades.

COVID-19 recovery policies must ensure that no child goes hungry. So far, this goal has been elusive. In the USA, the First Coronavirus Response Act, passed in March, provided additional funding to pre-existing food assistance programmes and enabled families to claim the cost of free school meals at grocery stores and certain online outlets. However, by mid-May, only 15% of eligible families were receiving the benefits. The UK Government has continued to fund means-tested free school meals for children attending school during lockdown. Families of children remaining at home and deprived of their usual free school meal became eligible for free food parcels or online food vouchers, redeemable at national supermarkets. Professional footballer Marcus Rashford successfully lobbied for the extension of this programme over the summer months to tackle the recurring phenomenon of so-called holiday hunger. But the Government have made it clear that the one-off scheme will end in September, when schools reopen. Meanwhile,

there have been reports from organisations such as the Child Poverty Action Group of implementation challenges, causing distress and humiliation to families in need.

A far more efficient and sustainable solution to the problem of food insecurity, one that assures the dignity of families, is to directly address child poverty. Societal interventions to reduce child poverty are among the most cost-effective solutions, with studies in the UK and the USA showing huge cost savings across all sectors of society. In the UK, modelling has shown that adding a modest £10 per week per child to child benefit would reduce child poverty by 5%. In many countries, the idea of a universal basic income is being debated, with evidence of increased support for such policies in the UK and USA. One simple and urgent policy—increased investment in child benefit to reach every child in need—can powerfully address food insecurity and its consequences.

Access to an adequate food supply is a basic human right. Poverty denies children their right to a standard of living that allows for their overall development. On moral, ethical, and medical grounds, we must ensure that children

have enough food to eat. National programmes to reduce inequalities in respiratory health will not succeed unless we address these issues.

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For the report from the Child Poverty Action Group see https://cpag.org.uk/sites/ default/files/files/The-cost-oflearning-in-lockdown-UK-FINAL_0.pdf

For more on **estimating the costs of child poverty** see https://www.jrf.org.uk/report/estimating-costs-child-poverty

For more on universal basic income see https://blogs.lse.ac.uk/politicsandpolicy/covid19-support-ubi/

Patient perspectives

Dance group enriches lives of people living with breathlessness

We've been coming dancing for about 2 and a half years now. We started the group (Dance Easy) after some of us attended our local Breathe Easy meeting—a patient-led support group, as part of the British Lung Foundation, for people with breathing problems. We usually have guest speakers, but this session was a bit different because we were asked to talk about our experience of dance. Breathe Easy meetings have been going for years but we'd never talked to each other about dance before, and yet we had loads of stories.

It turned out that many of us used to go to the same dance halls in London (UK) and take the same bus to get there. In those years (1950s and 60s), everyone went to the dance halls, even if they didn't dance. There were two popular ones in Haringey, the London borough where we live: the Tottenham Royal and the Athenaeum. The Tottenham Royal has since been knocked down, and the Athenaeum is now a supermarket, so the social history of these buildings is now invisible. We used to go dancing every Saturday night; it was where you went to meet your friends. In the Breathe Easy meeting, the women told stories of spending their Saturdays getting their dress ready, including stealing sugar from their mum's cupboard to starch their petticoats. Having the right shoes was also important because the dance halls wanted to protect their floors, so some heels were banned. The men talked about perfecting their hair styles to match whatever style was in vogue at the time, such as the ducktail. Looking at pictures, glamorous hair styles were everywhere, and cigarettes were also a common feature—they were part of the culture.

As we are all different ages, our memories of the music vary. Only a couple of us remember dancing to Victor Silvester, but it prompted a good conversation about how we learned to dance—his music was a great way of teaching the steps. Some of us learned dancing as children; in some blocks of flats there was a dance class on the ground floor and our mums used to send us to get us out from under their feet. One of us went to the local town hall to ballet lessons from the age of 4 years and had to stop when the area was bombed. There were dance schools specifically for young men, but again most of these were knocked down. It was important as a girl to have a dance partner who could lead you well. One of our group ran a section for girl guides and found all of her old records of English country dance music and her notes about the steps, and she brought them along to class. We don't have the same taste in music, but it doesn't matter because it exposes us to new songs and tunes and we each interpret the music in different ways. In the future, perhaps there will be people who are breathless who were part of the clubbing and raving generation and they'll likely want something a bit different as well. We even do a bit of Greek dancing, although every nation has dancing, doesn't it?





For more on **Dance Easy** see https://lifeofbreath. org/2020/03/dance-easybreathe-better-and-feel-good/